oS90
1024

#9

OIPE

ENTERED

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/864,636A

DATE: 11/06/2002 P.6
TIME: 14:17:06

Input Set : D:\04944MM.ST25.txt
Output Set: N:\CRF4\11062002\I864636A.raw

```
 3 <110> APPLICANT: Third Wave Technologies
 4         Allwai, Hatim
 5         Bartholomay, Christian
 6         Chehak, LuAnne
 8 <120> TITLE OF INVENTION: Detection of RNA Sequences
10 <130> FILE REFERENCE: FORS-04944
12 <140> CURRENT APPLICATION NUMBER: 09/864,636A
C--> 13 <141> CURRENT FILING DATE: 2002-10-15
15 <160> NUMBER OF SEQ ID NOS: 2640
17 <170> SOFTWARE: PatentIn version 3.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 834
21 <212> TYPE: PRT
22 <213> ORGANISM: Thermus aquaticus
24 <400> SEQUENCE: 1
26 Met Glu Ala Met Leu Pro Leu Phe Glu Pro Lys Gly Arg Val Leu Leu
27 1               5                  10                  15
29 Val Asp Gly His His Leu Ala Tyr Arg Thr Phe Phe Ala Leu Lys Gly
30              20                  25                  30
32 Leu Thr Thr Ser Arg Gly Glu Pro Val Gln Ala Val Tyr Gly Phe Ala
33          35                  40                  45
35 Lys Ser Leu Leu Lys Ala Leu Lys Glu Asp Gly Tyr Lys Ala Val Phe
36      50                  55                  60
38 Val Val Phe Asp Ala Lys Ala Pro Ser Phe Arg His Glu Ala Tyr Glu
39 65                  70                  75                  80
41 Ala Tyr Lys Ala Gly Arg Ala Pro Thr Pro Glu Asp Phe Pro Arg Gln
42              85                  90                  95
44 Leu Ala Leu Ile Lys Glu Leu Val Asp Leu Leu Gly Phe Thr Arg Leu
45              100                 105                 110
47 Glu Val Pro Gly Tyr Glu Ala Asp Asp Val Leu Ala Thr Leu Ala Lys
48          115                 120                 125
50 Lys Ala Glu Lys Glu Gly Tyr Glu Val Arg Ile Leu Thr Ala Asp Arg
51      130                 135                 140
53 Asp Leu Tyr Gln Leu Val Ser Asp Arg Val Ala Val Leu His Pro Glu
54 145                 150                 155                 160
56 Gly His Leu Ile Thr Pro Glu Trp Leu Trp Glu Lys Tyr Gly Leu Arg
57              165                 170                 175
59 Pro Glu Gln Trp Val Asp Phe Arg Ala Leu Val Gly Asp Pro Ser Asp
60              180                 185                 190
62 Asn Leu Pro Gly Val Lys Gly Ile Gly Glu Lys Thr Ala Leu Lys Leu
63          195                 200                 205
65 Leu Lys Glu Trp Gly Ser Leu Glu Asn Leu Leu Lys Asn Leu Asp Arg
66      210                 215                 220
```

RAW SEQUENCE LISTING   DATE: 11/06/2002
PATENT APPLICATION: US/09/864,636A   TIME: 14:17:06

Input Set : D:\04944MM.ST25.txt
Output Set: N:\CRF4\11062002\I864636A.raw

```
68  Val Lys Pro Glu Asn Val Arg Glu Lys Ile Lys Ala His Leu Glu Asp
69  225               230             235                 240
71  Leu Arg Leu Ser Leu Glu Leu Ser Arg Val Arg Thr Asp Leu Pro Leu
72              245             250             255
74  Glu Val Asp Leu Ala Gln Gly Arg Glu Pro Asp Arg Glu Gly Leu Arg
75              260             265             270
77  Ala Phe Leu Glu Arg Leu Glu Phe Gly Ser Leu Leu His Glu Phe Gly
78              275             280             285
80  Leu Leu Glu Ala Pro Ala Pro Leu Glu Glu Ala Pro Trp Pro Pro Pro
81      290             295             300
83  Glu Gly Ala Phe Val Gly Phe Val Leu Ser Arg Pro Glu Pro Met Trp
84  305             310             315                 320
86  Ala Glu Leu Lys Ala Leu Ala Ala Cys Arg Asp Gly Arg Val His Arg
87              325             330             335
89  Ala Ala Asp Pro Leu Ala Gly Leu Lys Asp Leu Lys Glu Val Arg Gly
90              340             345             350
92  Leu Leu Ala Lys Asp Leu Ala Val Leu Ala Ser Arg Glu Gly Leu Asp
93              355             360             365
95  Leu Val Pro Gly Asp Asp Pro Met Leu Leu Ala Tyr Leu Leu Asp Pro
96      370             375             380
98  Ser Asn Thr Thr Pro Glu Gly Val Ala Arg Arg Tyr Gly Gly Glu Trp
99  385             390             395                 400
101 Thr Glu Asp Ala Ala His Arg Ala Leu Leu Ser Glu Arg Leu His Arg
102             405             410             415
104 Asn Leu Leu Lys Arg Leu Glu Gly Glu Glu Lys Leu Leu Trp Leu Tyr
105             420             425             430
107 His Glu Val Glu Lys Pro Leu Ser Arg Val Leu Ala His Met Glu Ala
108             435             440             445
110 Thr Gly Val Arg Leu Asp Val Ala Tyr Leu Gln Ala Leu Ser Leu Glu
111     450             455             460
113 Leu Ala Glu Glu Ile Arg Arg Leu Glu Glu Glu Val Phe Arg Leu Ala
114 465             470             475                 480
116 Gly His Pro Phe Asn Leu Asn Ser Arg Asp Gln Leu Glu Arg Val Leu
117             485             490             495
119 Phe Asp Glu Leu Arg Leu Pro Ala Leu Gly Lys Thr Gln Lys Thr Gly
120             500             505             510
122 Lys Arg Ser Thr Ser Ala Ala Val Leu Glu Ala Leu Arg Glu Ala His
123             515             520             525
125 Pro Ile Val Glu Lys Ile Leu Gln His Arg Glu Leu Thr Lys Leu Lys
126     530             535             540
128 Asn Thr Tyr Val Asp Pro Leu Pro Ser Leu Val His Pro Arg Thr Gly
129 545             550             555                 560
131 Arg Leu His Thr Arg Phe Asn Gln Thr Ala Thr Ala Thr Gly Arg Leu
132             565             570             575
134 Ser Ser Ser Asp Pro Asn Leu Gln Asn Ile Pro Val Arg Thr Pro Leu
135             580             585             590
137 Gly Gln Arg Ile Arg Arg Ala Phe Val Ala Glu Ala Gly Trp Ala Leu
138             595             600             605
140 Val Ala Leu Asp Tyr Ser Gln Ile Glu Leu Arg Val Leu Ala His Leu
```

RAW SEQUENCE LISTING   DATE: 11/06/2002
PATENT APPLICATION: US/09/864,636A   TIME: 14:17:06

Input Set : D:\04944MM.ST25.txt
Output Set: N:\CRF4\11062002\I864636A.raw

```
141     610                615                620
143 Ser Gly Asp Glu Asn Leu Ile Arg Val Phe Gln Glu Gly Lys Asp Ile
144 625                630                635                640
146 His Thr Gln Thr Ala Ser Trp Met Phe Gly Val Pro Pro Glu Ala Val
147                645                650                655
149 Asp Pro Leu Met Arg Arg Ala Ala Lys Thr Val Asn Phe Gly Val Leu
150                660                665                670
152 Tyr Gly Met Ser Ala His Arg Leu Ser Gln Glu Leu Ala Ile Pro Tyr
153          675                680                685
155 Glu Glu Ala Val Ala Phe Ile Glu Arg Tyr Phe Gln Ser Phe Pro Lys
156     690                695                700
158 Val Arg Ala Trp Ile Glu Lys Thr Leu Glu Glu Gly Arg Lys Arg Gly
159 705                710                715                720
161 Tyr Val Glu Thr Leu Phe Gly Arg Arg Arg Tyr Val Pro Asp Leu Asn
162                725                730                735
164 Ala Arg Val Lys Ser Val Arg Glu Ala Ala Glu Arg Met Ala Phe Asn
165                740                745                750
167 Met Pro Val Gln Gly Thr Ala Ala Asp Leu Met Lys Leu Ala Met Val
168          755                760                765
170 Lys Leu Phe Pro Arg Leu Arg Glu Met Gly Ala Arg Met Leu Leu Gln
171     770                775                780
173 Val His Asp Glu Leu Leu Leu Glu Ala Pro Gln Ala Arg Ala Glu Glu
174 785                790                795                800
176 Val Ala Ala Leu Ala Lys Glu Ala Met Glu Lys Ala Tyr Pro Leu Ala
177                805                810                815
179 Val Pro Leu Glu Val Glu Val Gly Met Gly Glu Asp Trp Leu Ser Ala
180                820                825                830
182 Lys Gly
```

185 <210> SEQ ID NO: 2
186 <211> LENGTH: 839
187 <212> TYPE: PRT
188 <213> ORGANISM: Artificial Sequence
190 <220> FEATURE:
191 <223> OTHER INFORMATION: Synthetic
193 <400> SEQUENCE: 2

```
195 Met Asn Ser Gly Met Leu Pro Leu Phe Glu Pro Lys Gly Arg Val Leu
196 1              5                10                15
198 Leu Val Asp Gly His His Leu Ala Tyr Arg Thr Phe His Ala Leu Lys
199                20                25                30
201 Gly Leu Thr Thr Ser Arg Gly Glu Pro Val Gln Ala Val Tyr Gly Phe
202          35                40                45
204 Ala Lys Ser Leu Leu Lys Ala Leu Lys Glu Asp Gly Asp Ala Val Ile
205     50                55                60
207 Val Val Phe Asp Ala Lys Ala Pro Ser Phe Arg His Glu Ala Tyr Gly
208 65                70                75                80
210 Gly Tyr Lys Ala Gly Arg Ala Pro Thr Pro Glu Asp Phe Pro Arg Gln
211                85                90                95
213 Leu Ala Leu Ile Lys Glu Leu Val Asp Leu Leu Gly Leu Ala Arg Leu
214                100                105                110
```

RAW SEQUENCE LISTING   DATE: 11/06/2002
PATENT APPLICATION: US/09/864,636A   TIME: 14:17:06

Input Set : D:\04944MM.ST25.txt
Output Set: N:\CRF4\11062002\I864636A.raw

```
216 Glu Val Pro Gly Tyr Glu Ala Asp Asp Val Leu Ala Ser Leu Ala Lys
217         115                 120                 125
219 Lys Ala Glu Lys Glu Gly Tyr Glu Val Arg Ile Leu Thr Ala Asp Lys
220     130                 135                 140
222 Asp Leu Tyr Gln Leu Leu Ser Asp Arg Ile His Val Leu His Pro Glu
223 145                 150                 155                 160
225 Gly Tyr Leu Ile Thr Pro Ala Trp Leu Trp Glu Lys Tyr Gly Leu Arg
226             165                 170                 175
228 Pro Asp Gln Trp Ala Asp Tyr Arg Ala Leu Thr Gly Asp Glu Ser Asp
229             180                 185                 190
231 Asn Leu Pro Gly Val Lys Gly Ile Gly Glu Lys Thr Ala Arg Lys Leu
232             195                 200                 205
234 Leu Glu Glu Trp Gly Ser Leu Glu Ala Leu Leu Lys Asn Leu Asp Arg
235     210                 215                 220
237 Leu Lys Pro Ala Ile Arg Glu Lys Ile Leu Ala His Met Asp Asp Leu
238 225                 230                 235                 240
240 Lys Leu Ser Trp Asp Leu Ala Lys Val Arg Thr Asp Leu Pro Leu Glu
241             245                 250                 255
243 Val Asp Phe Ala Lys Arg Arg Glu Pro Asp Arg Glu Arg Leu Arg Ala
244             260                 265                 270
246 Phe Leu Glu Arg Leu Glu Phe Gly Ser Leu Leu His Glu Phe Gly Leu
247         275                 280                 285
249 Leu Glu Ser Pro Lys Ala Leu Glu Glu Ala Pro Trp Pro Pro Pro Glu
250     290                 295                 300
252 Gly Ala Phe Val Gly Phe Val Leu Ser Arg Lys Glu Pro Met Trp Ala
253 305                 310                 315                 320
255 Asp Leu Leu Ala Leu Ala Ala Ala Arg Gly Gly Arg Val His Arg Ala
256             325                 330                 335
258 Ala Asp Pro Leu Ala Gly Leu Lys Asp Leu Lys Glu Val Arg Gly Leu
259             340                 345                 350
261 Leu Ala Lys Asp Leu Ala Val Leu Ala Ser Arg Glu Gly Leu Asp Leu
262         355                 360                 365
264 Val Pro Gly Asp Asp Pro Met Leu Leu Ala Tyr Leu Leu Asp Pro Ser
265     370                 375                 380
267 Asn Thr Thr Pro Glu Gly Val Ala Arg Arg Tyr Gly Gly Glu Trp Thr
268 385                 390                 395                 400
270 Glu Asp Ala Ala His Arg Ala Leu Leu Ser Glu Arg Leu His Arg Asn
271             405                 410                 415
273 Leu Leu Lys Arg Leu Glu Gly Glu Glu Lys Leu Leu Trp Leu Tyr His
274         420                 425                 430
276 Glu Val Glu Lys Pro Leu Ser Arg Val Leu Ala His Met Glu Ala Thr
277         435                 440                 445
279 Gly Val Arg Arg Asp Val Ala Tyr Leu Gln Ala Leu Ser Leu Glu Leu
280     450                 455                 460
282 Ala Glu Glu Ile Arg Arg Leu Glu Glu Glu Val Phe Arg Leu Ala Gly
283 465                 470                 475                 480
285 His Pro Phe Asn Leu Asn Ser Arg Asp Gln Leu Glu Arg Val Leu Phe
286             485                 490                 495
288 Asp Glu Leu Arg Leu Pro Ala Leu Gly Lys Thr Gln Lys Thr Gly Lys
```

RAW SEQUENCE LISTING   DATE: 11/06/2002
PATENT APPLICATION: US/09/864,636A   TIME: 14:17:06

Input Set : D:\04944MM.ST25.txt
Output Set: N:\CRF4\11062002\I864636A.raw

```
289              500              505              510
291 Arg Ser Thr Ser Ala Ala Val Leu Glu Ala Leu Arg Glu Ala His Pro
292         515              520              525
294 Ile Val Glu Lys Ile Leu Gln His Arg Glu Leu Thr Lys Leu Lys Asn
295      530              535              540
297 Thr Tyr Val Asp Pro Leu Pro Ser Leu Val His Pro Arg Thr Gly Arg
298 545              550              555              560
300 Leu His Thr Arg Phe Asn Gln Thr Ala Thr Ala Thr Gly Arg Leu Ser
301              565              570              575
303 Ser Ser Asp Pro Asn Leu Gln Asn Ile Pro Val Arg Thr Pro Leu Gly
304         580              585              590
306 Gln Arg Ile Arg Arg Ala Phe Val Ala Glu Ala Gly Trp Ala Leu Val
307         595              600              605
309 Ala Leu Asp Tyr Ser Gln Ile Glu Leu Arg Val Leu Ala His Leu Ser
310      610              615              620
312 Gly Asp Glu Asn Leu Ile Arg Val Phe Gln Glu Gly Lys Asp Ile His
313 625              630              635              640
315 Thr Gln Thr Ala Ser Trp Met Phe Gly Val Pro Pro Glu Ala Val Asp
316         645              650              655
318 Pro Leu Met Arg Arg Ala Ala Lys Thr Val Asn Phe Gly Val Leu Tyr
319         660              665              670
321 Gly Met Ser Ala His Arg Leu Ser Gln Glu Leu Ala Ile Pro Tyr Glu
322         675              680              685
324 Glu Ala Val Ala Phe Ile Glu Arg Tyr Phe Gln Ser Phe Pro Lys Val
325      690              695              700
327 Arg Ala Trp Ile Glu Lys Thr Leu Glu Glu Gly Arg Lys Arg Gly Tyr
328 705              710              715              720
330 Val Glu Thr Leu Phe Gly Arg Arg Arg Tyr Val Pro Asp Leu Asn Ala
331              725              730              735
333 Arg Val Lys Ser Val Arg Glu Ala Ala Glu Arg Met Ala Phe Asn Met
334         740              745              750
336 Pro Val Gln Gly Thr Ala Ala Asp Leu Met Lys Leu Ala Met Val Lys
337         755              760              765
339 Leu Phe Pro Arg Leu Arg Glu Met Gly Ala Arg Met Leu Leu Gln Val
340      770              775              780
342 His Asn Glu Leu Leu Leu Glu Ala Pro Gln Ala Arg Ala Glu Glu Val
343 785              790              795              800
345 Ala Ala Leu Ala Lys Glu Ala Met Glu Lys Ala Tyr Pro Leu Ala Val
346         805              810              815
348 Pro Leu Glu Val Glu Val Gly Met Gly Glu Asp Trp Leu Ser Ala Lys
349         820              825              830
351 Gly His His His His His
352         835
354 <210> SEQ ID NO: 3
355 <211> LENGTH: 842
356 <212> TYPE: PRT
357 <213> ORGANISM: Artificial Sequence
359 <220> FEATURE:
360 <223> OTHER INFORMATION: Synthetic
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/06/2002
PATENT APPLICATION: US/09/864,636A   TIME: 14:17:07

Input Set : D:\04944MM.ST25.txt
Output Set: N:\CRF4\11062002\I864636A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:156; N Pos. 4,5,181,182,190,366,617,628,685,714,722,738,784,1022,1029
Seq#:156; N Pos. 1038,1053,1098,1105,1206,1227,1244,1251,1252,1253,1350
Seq#:156; N Pos. 1380,1497,1530,1569,1572,1641,1653,1655,1770,1812,2319
Seq#:156; N Pos. 2346,2396
Seq#:159; Xaa Pos. 2,63,109,186,205,209,227,228,233,240,243,244,247,260,290
Seq#:159; Xaa Pos. 329,336,340,368,414,417,418,431,551,605,773,794,798,823
Seq#:159; Xaa Pos. 833
Seq#:162; N Pos. 1,35
Seq#:166; N Pos. 1
Seq#:167; N Pos. 1
Seq#:172; N Pos. 4
Seq#:189; N Pos. 4
Seq#:223; N Pos. 1,6
Seq#:230; N Pos. 30
Seq#:231; N Pos. 1
Seq#:232; N Pos. 28
Seq#:233; N Pos. 1
Seq#:234; N Pos. 1
Seq#:413; N Pos. 19,20,21
Seq#:421; N Pos. 16,17,18
Seq#:425; N Pos. 19,20,21

VERIFICATION SUMMARY   DATE: 11/06/2002
PATENT APPLICATION: US/09/864,636A   TIME: 14:17:07

        Input Set : D:\04944MM.ST25.txt
        Output Set: N:\CRF4\11062002\I864636A.raw

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:18377 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:156
L:18383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:0
L:18389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:180
L:18395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:360
L:18403 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:600
L:18405 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:660
L:18407 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:720
L:18409 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:780
L:18417 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:1020
L:18419 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:1080
L:18423 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:1200
L:18427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:1320
L:18431 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:1440
L:18433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:1500
L:18435 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:1560
L:18437 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:1620
L:18441 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:1740
L:18443 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:1800
L:18459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:2280
L:18461 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:2340
L:18803 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:159
L:18810 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:0
L:18819 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:48
L:18828 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:96
L:18843 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:176
L:18846 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:192
L:18849 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:208
L:18852 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:224
L:18855 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:240
L:18858 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:256
L:18864 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:288
L:18870 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:320
L:18873 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:336
L:18876 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:352
L:18885 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:400
L:18888 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:416
L:18912 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:544
L:18921 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:592
L:18954 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:768
L:18957 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:784
L:18963 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:816
L:18966 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:832
L:19022 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:162
L:19028 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:162
L:19034 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:162 after pos.:0
L:19162 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:166
L:19168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:166 after pos.:0

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/864,636A

DATE: 11/06/2002
TIME: 14:17:07

Input Set : D:\04944MM.ST25.txt
Output Set: N:\CRF4\11062002\I864636A.raw

```
L:19180 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:167
L:19186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:167 after pos.:0
L:19246 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:172
L:19252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:172 after pos.:0
L:19456 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:189
L:19462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:189 after pos.:0
L:20121 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:223
L:20127 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:223
L:20133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:223 after pos.:0
L:20217 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:230
L:20223 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:230 after pos.:0
L:20235 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:231
L:20241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:231 after pos.:0
L:20253 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:232
L:20259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:232 after pos.:0
L:20271 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:233
L:20277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:233 after pos.:0
L:20289 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:234
L:30209 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:413
L:31028 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:421
L:31321 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:425
```